Panasonic
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Super Dynamic HD Vandal Resistant Dome Network Camera

WV-SW155 / WV-SW155M

Super Dynamic Vandal Resistant Dome Network Camera

WV-SW152 / WV-SW152M

HD / 1,280 x 960 H.264 Vandal Resistant Network Camera featuring *Super Dynamic* (WV-SW155)

SVGA / 800 x 600 H.264 Vandal Resistant Network Camera featuring *Super Dynamic* (WV-SW152)

Key Features

- 720p HD images up to 30 fps (WV-SW155)
- 1.3 Megapixel high sensitivity MOS Sensor
- Super high resolution at SVGA/800 x 600 created by 1.3 Megapixel high sensitivity MOS Sensor (WV-SW152)
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by "UniPhier®", Panasonic's proprietary System LSI platform.
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size (WV-SW155)
- Full frame (Up to 30 fps) transmission at SVGA (800 x 600) image size (WV-SW152)
- ***Super Dynamic*** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- ***Face Super Dynamic*** Range technology ensures clear face image.
- High sensitivity with Day & Night (Electrical) function:
  0.8 lx (Color), 0.6 lx (B/W) at F2.2 (WV-SW155)
  0.6 lx (Color), 0.4 lx (B/W) at F2.2 (WV-SW152)
- VIQS (Variable Image Quality on Specified area) technology allows the designated area to retain higher image quality while the excluded area will have a decreased image quality, which enables to use lower image file size and bit rate.
- Digital Noise Reduction: 3D-DNR ensures noise reduction in various conditions.
- Progressive scan ensures clear images with less motion blur and no tearing even when the subject is moving.
- Electronic sensitivity enhancement: Auto (Up to 16x) / OFF
- Selectable light control modes: Indoor scene (50 Hz) / Indoor scene (60 Hz) / ELC (maximum exposure time)
  Indoor scene (50 Hz/60Hz): Flicker caused by fluorescent lightning will be automatically compensated.
  ELC (maximum exposure time): The lightning control will be automatically performed by adjusting shutter speed in the range of ELC.
- 2x extra zoom at VGA resolution
- 2x, 4x digital zoom controlled by browser
- VMD (Video Motion Detection) with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size
- Face detection function detects the position of human face and the information is sent by XML or video stream.
- Meta data for VMD works with the WJ-ND400 playback VMD function.
- Privacy Zone can mask up to 2 private areas, such as house windows and entrances/exits.
- Camera title display: Up to 20 alphanumeric characters on the browser
- Alarm sources including VMD and Panasonic alarm command can trigger actions such as FTP image transfer, E-mail notification, Indication on browser, and Panasonic alarm protocol output.
- JPEG Image compression ratio can be changed by alarm so that higher quality image can be provided.
- Prioritized stream control: One of the video streams can be prioritized when multiple recorders or client PCs are accessing the camera so that the recorder or the client PC can maintain the frame rate.
- SDHC/SD Memory card slot for manual recording (H.264 / JPEG), alarm recording (H.264 / JPEG) and backup upon network failure (JPEG)
- H.264 max. bit rate/client and Total bit rate control allows flexible network traffic management. Frame rate priority mode controls bit rate and compression ratio to provide the specified frame rate.
- Internet mode: H.264 images can be transmitted over HTTP protocol.
- Multi-language: English / Italian / French / German / Spanish / Russian / Chinese / Japanese
- IPv4/IPv6 protocol supported
- Supports SSL, DDNS (viewnetcam, RFC2136)
- Still images (JPEG) can be viewed on mobile phones via Internet.
- ONVIF compliant model
- Low profile design for discrete installation
- "Railway applications – Electronics equipment used on rolling stock" compatible with EN50155
- Wide coverage (Horizontal: 104 °, Vertical: 85 °)
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard.
- Vandal resistant mechanism for high reliability

Standard Accessories

- Installation Guide .....1 pc.
- Important Safety Instructions.....1 pc.
- CD-ROM*1.....1 pc.
- Code Label*2.....1 pc.
- Lens adjuster.....1 pc.

The followings are for installation.

- Fixing Screws (M4 x 8 mm).....3 pcs.
- Installation Template Label .....1 pc.
- Plastic cover.....1 pc.
- Mount Bracket.....1 pc.
- Tamperproof Screw Bit.....1 pc.
- Waterproof Tape .....1 pc.

*1 The CD-ROM contains the operating instructions and different kinds of tool software programs.
*2 This label may be required for network management. The network administrator shall retain the code label.

Optional Accessories

Smoke Dome Cover
WV-CW6S

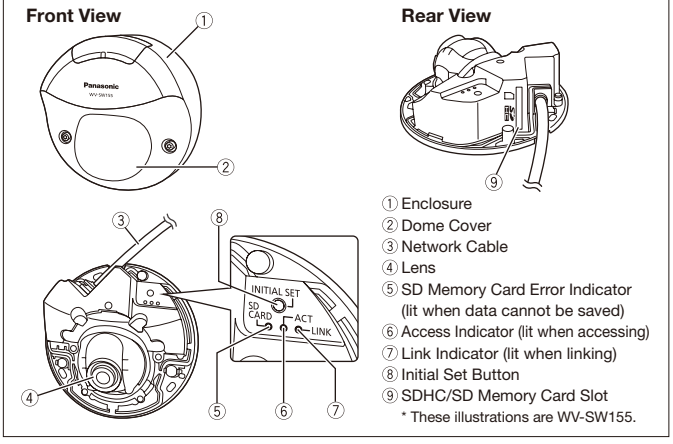
Specifications

TV System			NTSC	PAL
Camera	Image Sensor		1/3 type MOS Sensor	
	Effective Pixels		Approx. 1.3 megapixel	
	Scanning Mode		Progressive	
	Scanning Area		4.8 mm (H) x 3.6 mm (V) (3/16" (H) × 5/32" (V))	
	Minimum Illumination		WV-SW155: Color: 0.8 lx (F2.2, Auto slow shutter: Off (1/30s), Gain: On (High)) 0.05 lx (F2.2, Auto slow shutter: Max. 16/30s, Gain: On (High)) *1 WV-SW152: Color: 0.6 lx (F2.2, Auto slow shutter: Off (1/30s), Gain: On (High)) 0.04 lx (F2.2, Auto slow shutter: Max. 16/30s, Gain: On (High)) *1	
	White Balance		AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 6,000 K), ATW2 (2,000 ~ 6,000 K)	
	Light Control Mode		Indoor scene (50 Hz / 60 Hz) / ELC	
	Shutter Speed	With Super Dynamic ON	ELC (1/30 s)	
		With Super Dynamic OFF	ELC (1/30 s), ELC (3/100 s), ELC (3/120 s), ELC (2/100 s), ELC (2/120 s), ELC (1/100 s), ELC (1/120 s), ELC (1/250 s), ELC (1/500 s), ELC (1/1,000 s), ELC (1/2,000 s), ELC (1/4,000 s), ELC (1/10,000 s)	
	Super Dynamic		ON / OFF	
	Face Super Dynamic		ON / OFF (Only at Super Dynamic: ON)	
	Adaptive Black Stretch		ON / OFF	
	AGC		ON (HIGH) / ON (MID) / ON (LOW) / OFF	
	Electronic Sensitivity UP		OFF (1/30 s), Max. 2/30 s, Max. 4/30 s, Max. 6/30 s, Max. 10/30 s, Max. 16/30 s	
	Day & Night(electrical)		OFF / AUTO	
	Dynamic Range		52 dB typ. (Super Dynamic: ON, Light Control: ELC)	
	Digital Noise Reduction		HIGH / LOW	
	Video Motion Detection		ON / OFF, 4 areas available	
	Privacy Zone		ON / OFF (up to 2 zones available)	
	VIQS		ON / OFF	
	Camera Title (OSD)		Up to 20 characters (alphanumeric characters, marks), On/Off	
	Focus Adjustment		MANUAL	
Lens	Focal Length		1.95 mm	
	Zoom Ratio		1x / Extra zoom: 2x (at VGA resolution)	
	Angular Field of View		Horizontal: 104 °, Vertical: 85 °	
	Maximum Aperture Ratio		1 : 2.2	
	Focusing Range		0.5 m ~ ∞	
Adjusting Angle			Ceiling Installation Horizontal: -20 ° to +20 ° Vertical: -20 ° to +90 ° Wall Installation Horizontal: -80 ° to +80 ° Vertical: -90 ° to +20 °	
Browser GUI	Camera Control		Brightness	
	Display Mode		Spot, Quad: Image from 16 cameras can be displayed in 4 different Quad screens or 16 split screen (JPEG only). 20 characters camera title available.	
	Digital Zoom		1x, 2x, 4x controlled by browser GUI	
	Camera Title		Up to 20 alphanumeric characters	
	Clock Display		Time: 12H/24H, Date: 5 formats on the browser, Summer time (Manual)	
	One Shot Capture		A still picture will be displayed on a newly opened window.	
	SD Memory Data Download		Still or motion Images recorded in the SDHC/SD memory card can be downloaded.	
	GUI/Setup Menu Language		English, Italian, French, German, Spanish, Chinese, Russian, Japanese	
	System Log		Up to 100 (Internal), Up to 4,000 (SDHC/SD memory when the recording format is set to JPEG.) error logs	
	Supported OS *2 *3		Microsoft® Windows® 7, Microsoft® Windows Vista®, Microsoft® Windows® XP SP3	
	Supported Browser		Windows® Internet Explorer® 9.0 (32 bit), Windows® Internet Explorer® 8.0 (32 bit), Windows® Internet Explorer® 7.0 (32 bit), Microsoft® Internet Explorer® 6.0 SP3	
Network	Network IF	WV-SW155 / WV-SW152	10Base-T / 100Base-TX, RJ-45 connector (female)	
		WV-SW155M / WV-SW152M	10Base-T / 100Base-TX, M12 connector (male)	
	Image Resolution *3 *4	Aspect ratio: [4 : 3]	WV-SW155: H.264: 1,280 x 960 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG: 1,280 x 960 / 640 x 480 / 320 x 240, up to 30 fps WV-SW152: H.264: 800 x 600 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG: 800 × 600 / VGA (640 × 480) / QVGA (320 × 240), up to 30 fps	
		Aspect ratio: [16 : 9]	WV-SW155: H.264: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps JPEG: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps WV-SW152: H.264: 640 x 360 / 320 x 180, up to 30 fps JPEG: 640 x 360 / 320 x 180, up to 30 fps	
	H.264/ MPEG-4 *5 *6	Transmission Mode	Constant bitrate / Framerate priority / Best effort	
		Frame Rate	1 / 3 / 5 / 7.5 / 10 / 15 / 20 / 30 fps	1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 fps
		Bit Rate/ Client	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 4,096 / 8,192* kbps * H.264 mode only (WV-SW155)	
		Image Quality	LOW / NORMAL / FINE	
		Transmission Type	UNICAST / MULTICAST	
	JPEG	Image Quality	10 steps	
		Refresh Interval	0.1 fps ~ 30 fps	
		Transmission Type	PULL / PUSH	
	Total Bit Rate		64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimited	
	Supported Protocol		IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6 IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RSTP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP	

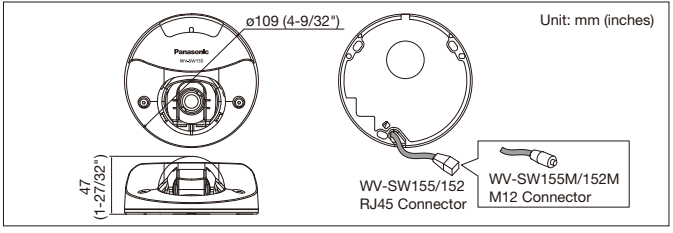
TV System			NTSC	PAL
Network	FTP Client		Alarm image transmission, FTP periodic transmission (When the FTP transmission is failed, backup on an optional SDHC/SD memory card is available.)	
	No. of Simultaneous Users		Up to 14 users (Depends on network conditions)	
	SDHC/SD Memory Card (Option)		Manufactured by Panasonic SDHC memory card: 4 GB, 8 GB, 16 GB, 32 GB SD memory card: 256 MB, 512 MB, 1 GB, 2 GB except miniSD card and microSD card	
	Face Detection		ON / OFF (with XML notification)	
	Cellular Phone Compatibility		JPEG image	
	Mobile Terminal Compatibility		iPad, iPhone, iPod touch	
Alarm	Alarm Source		VMD, Command alarm	
	Alarm Actions		SDHC/SD memory recording, E-mail notification, Indication on browser, FTP image transfer, Panasonic protocol output	
	Alarm Log		With SDHC/SD memory card: 5,000 logs, without SDHC/SD memory card: 1,000 logs	
	Schedule		VMD	
General	Safety/EMC Standard		UL (UL60950-1), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60950-1), DOC (ICES003 ClassA)	CE, IEC60950-1 (EN55022 ClassB, EN55024)
	Power Source and Power Consumption		PoE (IEEE802.3af compliant) / PoE 48 V: 56 mA (Class 1 device)	
	Ambient Operating Temperature		–30 °C ~ +50 °C (–22 °F ~ 122 °F)	
	Ambient Operating Humidity		Less than 90 % (no condensation)	
	Impact Protection		IEC 60068-2-75 test Eh, 50 J / IEC 62262 IK10	
	Water and Dust Resistance		Camera: IP66 (IEC60529) *5	
	Railway Application		EN50155, EN50121	
	Dimensions		ø109 mm x 47 mm (H) (ø4-9/32" x 1-27/32" (H))	
	Mass (approx.)		350 g (0.77 lbs.)	
	Finish		Main body: Aluminum die cast, light gray, Dome section: Clear polycarbonate resin	

*1 Converted value
*2 Refer to "Notes on Windows Vista® / Windows® 7 on the provided CD-ROM for further information about system requirements for a PC and precautions when using Microsoft® Windows® 7 or Microsoft® Windows Vista®.
*3 When using IPv6 for communication, use Microsoft® Windows® 7 or Microsoft® Windows Vista®.
*4 Transmission for 2 streams can be individually set in the same compression method.
*5 Only when installation work specified in this book is properly performed and appropriate waterproof treatment is performed.

Part Names and Functions



Appearance



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Important
– Safety Precaution: carefully read the operating instructions and installation manual before using this product.
– Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.

- All TV pictures are simulated.
- Masses and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
- All product pictures are NTSC models.

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